

**Claims after this response:**

1. (Currently Amended) A method for a user of a measurement process to cause a variation in the measurement process, the measurement process comprising a sequence of operations controlled by a computer program containing a variation point at which a function call instruction is inserted by a designer of the computer program to pass control to a user-defined variation function, said method comprising:

determining the variation to the measurement process;

providing a user-generated process modification software module comprising the user-defined variation function for causing the variation; and

associating the function call instruction with the user-defined variation function prior to execution of the measurement process but after the computer program has been compiled to executable code;

generating an executable variation of the measurement process wherein the function call instruction passes control to the user-defined variation function when the variation point in the computer program is reached and wherein the user is prevented from modifying the measurement process other than through the user-defined variation function.

2. (Original) A method as in Claim 1, wherein the process modification software module further comprises an interface servicing element that services an interface realized by the measurement process.

3.(Original) A method as in Claim 2, wherein said interface operates in accordance with a predetermined protocol.

4. (Original) A method as in Claim 3, wherein said predetermined protocol is specified at a binary level.

5. (Original) A method as in Claim 3, wherein said predetermined protocol is a Simple Object Access Protocol.

6. (Original) A method as in Claim 3, wherein said predetermined protocol is a Common Object Request Broker Architecture.

7. (Original) A method as in Claim 2, wherein said interface is determined by the user and is passed into said measurement process.

8. (Previously Presented) A method as in Claim 1, wherein said process modification software module is one of a Component Object Module, a computer program conforming to a software component specification for distributed applications, and a Dynamically Linked Library.

9. (Original) A method as in Claim 1, wherein the measurement process and the process modification software module are executed in a shared computer memory space.

10. (Original) A method as in Claim 1, wherein said measurement process is executed in a first memory space of a first computer and said process modification software module is executed in a second memory space which is distinct from the first memory space.

11. (Original) A method as in Claim 10, wherein the second memory space is located within a second computer.

12. (Original) A method as in Claim 11, wherein the second computer is remote from the first computer.

13. (Original) A method as in Claim 12, wherein the first computer and the second computer communicate via a network.

14. (Original) A method as in Claim 1, wherein said variation comprises modification of data.

15. (Original) A method as in Claim 1, wherein said variation comprises modification of one or more numerical parameters of the measurement process.

16. (Original) A method as in Claim 1, wherein said variation comprises modification of one or more control parameters of the measurement process, wherein one or more alternatives within the measurement process may be selected.

17. (Original) A method as in Claim 1, wherein said measurement process is applied to a device under test and said variation comprises alteration of a configuration of the device under test.

18. (Original) A method as in Claim 1, wherein said measurement process is applied to a device under test and said variation comprises causing input signals to be supplied to the device under test.

19. (Original) A method as in Claim 1, wherein said computer program contains a plurality of variation points and said process modification software module comprises a plurality of user-defined functions and wherein each of the plurality of variation points is associated with one of the plurality of user-defined functions.

20. (Previously Presented) a method as in Claim 1, wherein said computer program contains a plurality of variation points and a plurality of process modification software modules are provided, each of the plurality of process modification software modules comprising at least one user-defined variation function and wherein each of the plurality of variation points is associated with one of the at least one user-defined variation functions.

21. (Previously Presented) A computer readable medium containing program instructions which, when executed on a computer, control a measurement process, said instructions comprising:

an executable variation of the measurement process, comprising:

a first plurality of instructions generated by a designer of the program of instructions and operable to initiate the measurement process; and

a second plurality of instructions generated by the designer and operable to control the measurement process, the second plurality of instructions including a function call instruction at a variation point, the function call instruction being operable to pass control to a user-defined variation function generated by a user;

wherein the function call instruction passes control to the user-defined variation function when the variation point in the computer program is reached wherein the user-defined variation function is associated with the function call instruction prior to execution of the measurement process and wherein the user-defined variation function operates to modify the measurement process and return control to the measurement process and wherein the user is prevented from modifying the measurement process other than through the user-defined variation function.

22. (Previously Presented) A computer readable medium as in Claim 21, wherein the function call instruction is operable to pass parameters to the user-defined variation function.

23. (Original) A computer readable medium as in Claim 21, wherein the parameters comprise measurement data.

24. (Previously Presented) A computer readable medium as in Claim 21, wherein the function call instruction is operable to receive parameters from the user-defined variation function.

25. (Previously Presented) A computer readable medium as in Claim 24, wherein the parameters comprise control parameters, operable to select between a plurality of alternative instructions controlling the measurement process.

26. (Original) A computer readable medium as in Claim 24, wherein the parameters comprise numerical parameters, operable to modify the measurement process.

27. (Original) A computer readable medium as in Claim 24, wherein said measurement process is applied to a device under test and wherein the parameters comprise control codes, operable to cause signals to be supplied to the device under test.

28. (Original) A computer readable medium as in Claim 24, wherein said measurement process is applied to a device under test and wherein the parameters comprise control codes, operable to alter the configuration of the device under test.

29. (Original) A computer readable medium as in Claim 21, wherein the function call instruction invokes an interface.

30. (Canceled)

31. (Previously Presented) A computer readable medium as in Claim 21 wherein the user-defined variation function provided by the user of the measurement process is accessed via an interface.

32. (Original) A computer readable medium as in Claim 31, wherein said interface operates according to a predetermined protocol.

33. (Original) A computer readable medium as in Claim 32, wherein said predetermined protocol is specified at a binary level.

34. (Original) A computer readable medium as in Claim 33, wherein said predetermined protocol is a Simple Object Access Protocol.

35. (Original) A computer readable medium as in Claim 33, wherein said predetermined protocol is a Common Object Request Broker Architecture.

36. (Previously Presented) A computer readable medium as in Claim 31, wherein said interface is determined by the user and wherein said instructions further comprise instructions to identify the interface.

37. (Previously Presented) A computer readable medium as in Claim 21, wherein the user-defined variation function is implemented as one of a Component Object Module, a computer program conforming to a software component specification for distributed applications, and a Dynamically Linked Library.

38. (Previously Presented) A computer readable medium as in Claim 21, wherein the second plurality of instructions includes a plurality of function call instructions passing control to a plurality of user-generated variation functions.

39. (Previously Presented) A computer readable medium as in Claim 21, wherein said function call instruction is placed within said second plurality of instructions at a variation point where the designer of the program of instructions anticipates a user may want to interact with or modify the measurement process.

40. (Previously Presented) A measurement system comprising:

a computer readable medium in accordance with Claim 21; and

a physical interface operable to execute the program instructions on the computer readable medium and to supply signals to a device under test and receive signals from a device under test.